CLAIMS

1. A disc-type recording and/or reproducing apparatus configured to load a disc-shaped recording medium at a recording/reproducing position and to perform a recording and/or a reproducing with a head, characterized by:

including a pair of detection means so as to be positioned at both sides of a moving path of the center of the disc-shaped recording medium, on the moving path for loading the disc-shaped recording medium; and

permitting the detection means to detect presence or absence of the mounted disc-shaped recording medium and whether or not the center of the disc-shaped recording medium is misaligned to a lateral direction from the moving path.

2. The disc-type recording and/or reproducing apparatus according to claim 1 characterized in that:

a pair of the detection means is arranged symmetrically about the moving path of the center of the disc-shaped recording medium.

3. The disc-type recording and/or reproducing apparatus according to claim 1 characterized in that:

the detection means includes a light emitter and a light detector, and carries out a detection operation in which a light emitted from the light emitter is reflected by the disc-shaped recording medium and received with the light detector.

4. A disc-type recording and/or reproducing apparatus configured to load a disc-shaped recording medium at a

recording/reproducing position by pulling a tray in on which the disc-shaped recording medium is mounted, and to perform a recording and/or a reproducing with a head, characterized by including:

on a pull-in path of the tray, tray detection means for detecting a predetermined portion of the tray; and disc detection means for detecting the disc-shaped recording medium.

5. The disc-type recording and/or reproducing apparatus according to claim 4 characterized in that:

the tray detection means includes a target section of detection which is provided, along the pull-in direction of the tray, at a predetermined position and the disc detection means directly detects the disc-shaped recording medium, and a combination of a detection by means of the disc detection means and a detection by means of the tray detection means allows to detect whether or not the disc-shaped recording medium is properly mounted on the tray, or of a size of the disc-shaped recording medium.

6. The disc-type recording and/or reproducing apparatus according to claim 5 characterized by including:

the tray detection means and the disc detection means on a peripheral edge of an opening serving to pull the tray in, at a front panel.

7. The disc-type recording and/or reproducing apparatus according to claim 6 characterized in that:

the tray detection means includes a light emitter and a light detector, and also includes a target section of detection including a reflective or a non-reflective portion at the tray

side; and a detection operation is carried out in which the light detector detects whether or not a light emitted from the light emitter is reflected at the target section of detection.

8. The disc-type recording and/or reproducing apparatus according to claim 6 characterized in that:

the disc detection means includes the light emitter and the light detector; and the light detector is permitted to carry out the detection operation by allowing the light emitted from the light emitter to be reflected from the disc-shaped recording medium.

9. The disc-type recording and/or reproducing apparatus according to claim 7 characterized in that:

a reflective foil is attached, along the pull-in direction of the tray, on a back surface opposite to a mounting surface for mounting the disc-shaped recording medium; a lack portion is formed where the reflective foil is absent corresponding to a size of the disc-shaped recording medium; and

it is judged such that the disc-shaped recording medium is properly mounted if the tray detection means detects the lack portion and if the disc detection means detects the disc-shaped recording medium; while in cases other than the above, it is judged such that the disc-shaped recording medium is not properly mounted.

10. The disc-type recording and/or reproducing apparatus according to claim 7 characterized in that:

the disc detection means are provided in a pair to be positioned at both sides of the moving path of the center of

the disc-shaped recording medium; a reflective foil is attached, along the pull-in direction of the tray, on a back surface opposite to the tray's mounting surface for mounting the disc-shaped recording medium; a lack portion is formed where the reflective foil is absent corresponding to a size of the disc-shaped recording medium; and it is judged such that the disc-shaped recording medium is properly mounted if the tray detection means detects the lack portion and if the disc detection means detects the disc-shaped recording medium, while in cases other than the above, it is judged such that the disc-shaped recording medium is not properly mounted.

11. A judging method for judging a disc-shaped recording medium characterized in that:

in a disc-type recording and/or reproducing apparatus configured to load the disc-shaped recording medium at a recording/reproducing position by pulling the tray on which the disc-shaped recording medium is mounted and to perform a recording and/or a reproducing with a head, there is provided on a peripheral edge of the opening, for pulling the ray in, on a front panel, tray detection means for detecting a target section of detection at a predetermined position of the tray; and disc detection means for detecting the disc-shaped recording medium on the tray,

wherein a combination of a detection output from the tray detection section and a detection output from the disc detection section allows to judge whether or not the disc-shaped recording medium is properly mounted on the tray, or of a size of the disc-shaped recording medium at the time when the tray is pulled in.